Among the 22 included studies, 21 herbs were reported to reduce AD-like skin lesions in mouse models by suppressing Th2 cell responses.

Conclusion: By summarizing the results from the published literature, we hope that this study might aid in finding a potential herbal therapeutic agent for the treatment of AD. The limitation of this study was that a meta-analysis was not conducted because of the variety of investigated herbs included in the studies. Nevertheless, this review may assist in identifying directions for further researches endeavors.

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P1.081

Effects of Twelve Korean Combined Herbal Prescriptions with Platycodon Grandiflorum on Induction of Autophagy and Inhibition of Cell Proliferation

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Purpose: In this research, we tested whether 12 Korean traditional combined herbal prescriptions including Platycodon Grandiflorum (PG) in Dong-Eui-Bo-Gam at the part of Ong-Jeo (abscesses and carbuncles) have anticancer properties through induction of autophagy.

Methods: Human lung adenocarcinoma A549 cells were treated with respective prescriptions and the antiproliferative potentials were measured using an MTT assay. The morphological changes were determined and the expressions of autophagy-related proteins (ATG) were investigated using an immunoblotting assay with specific antibodies.

Results: Our findings indicated that all of 12 prescriptions with PG showed formation of autophagic vacuoles. The expression of microtubule-associated protein 1 light chain 3 and Beclin-1, and ATG7 were significantly increased. In addition, 12 prescriptions treatments resulted in a dose-dependent inhibition to cell proliferation. Among them, Mok-Dan-Pi-Tang showed the highest activity than others.

Conclusion: Treatments of 12 Korean traditional combined herbal prescriptions with PG triggered autophagy and decreased cell growth of A549 lung cancer cells. Moreover, Mok-Dan-Pi-Tang which was used to treat Pyo-Ong (lung abscesses) could be the best anticancer candidate in lung cancer therapy [NRF (No. 2013R1A1A2065537)].

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P1.082

Monitoring of Hippocampal NFκB activity using Lentiviral-based reporter system

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Purpose: The creation of molecular tools able to unravel in vivo spatiotemporal activation of cell signalling is of significant importance for the systemic study of complementary therapies in medicine. Particularly, NFκB signalling have been known to play a therapeutic role in many natural products including antioxidants for mental health, but its in vivo mechanism remains incompletely understood.

Methods: Here using bioluminescence imaging (BLI) technique, we describe the generation, validation and applications of a lentiviral-based luciferase reporter system for the in vivo NFκB signalling, named NFκB biosensor.

Results: The biosensor shows sensitive and selective detection as demonstrated by that TNF-α activated NFκB pathway activity in a dose-dependent manner, which was blocked by pyrrolidine dithiocarbamate (a specific NFκB inhibitor) in hippocampal neuronal cultures. Lithium as an alternative medicine for bipolar disorder also activated NFκB signalling via NFκB nucleus translocalization, providing an initial evidence that therapeutic action of lithium is involved in the modulation of NFκB signalling. We finally show that the sensor allows for monitoring of increased NFκB activity by lithium treatment in the hippocampal DG region of living mice.

Conclusion: By virtue of the unique functional characteristics of BLI, the biosensor provides an enormous potential high-throughput screening of therapeutic drugs and complementary therapies targeted to NFκB signalling.

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Antioxidant effects of acupuncture in morphine plus acetaminophen injured rat liver

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Purpose: Morphine (MP) and acetaminophen (APAP), a world widely-used pain reliever and antipyretic, are known to induce hepatotoxicity. Acupuncture has been used for diverse effects including detoxification in Asia. In this study, the possi-